CONTENT DELIVERY NETWORK USING DIFFERENTIAL CACHING

Approved.
KW
1/10/05

BACKGROUND OF THE INVENTION

Field of the Invention

[001] This invention relates to a content delivery network using differential caching.

Related Art

[002] When multiple users (at client devices) request information from a server (at a server device), it often occurs that the number of requests from client devices taxes the server device, and reduces the quality of service that each user experiences. Moreover, when those multiple client devices are distributed at widely disparate locations, there is reduced quality of service experienced by users relatively distant from the server device, due to distance (either measured physically or measured by a communication network topology) that messages travel. Accordingly, it would be advantageous to provide additional server devices having the same content for delivery to client devices, to (1) share the load of requests made to the server device, and to (2) move the content for delivery closer to client devices. Each of these effects should improve the quality of service experienced by client devices.

[003] One known method is to provide a content delivery network, including an originating server device and a set of mirroring server devices, disposed so that original content from the originating server is delivered and maintained at each of the mirroring servers. While this known method generally achieves the goal of moving content for delivery closer to client devices, it has the drawback that it is relatively unsuitable for content that is not static. When the content for delivery is dynamically changing, or is personalized for users at different client devices, the content is not static, and the mirroring servers cannot guarantee that they have the correct content for delivery. The content delivery network thus is relatively unsuitable for responding to requests for non-static content.

[004] Accordingly, it would be desirable to provide a technique for serving relatively non-static content for delivery in a content delivery network.